1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

101 131 latter by an imaginary line drawn from the mouth of the Dras river to the sources of the Nubra river.

131 Its greatest extent is from north-west to south-east, from the head of the Dras river, in longitude 75° 30′, to Chibra, on the Indus, in longitude 79° 10′, a distance of 240 miles. Its greatest breadth is 290 miles, from the Kárákoram Pass, in north latitude 35° 10′, to the Rotang Pass in Lahul, in latitude 32° 25′. Its mean length is 200 miles, and its mean breadth 150 miles. Its whole extent is therefore only 30,000 square miles.

634 The natural divisions of the country are: 1st, Nubra on the Shayok: 2nd, Ladák Proper, on the Indus: 3rd, Zanskar, on the Zanskar river: 4th, Rukchu, around the lakes of Tshomo Riri and Tsho-Kar: 5th, Purik, Suru, and Dras, on the different branches of the Dras river: 6th, Spiti, on the Spiti river: and 7th, Lahul, on the Chandra and Bhaga, or head-waters of the Chenáb. These also are the actual divisions of the country, for the natural boundaries of a mountainous district generally remain unaltered, in spite of the changes wrought by war and religion.

636 Ladák is divided politically between Maharaja Guláb Sing and the East-India Company. To the former belong all the northern districts, to the latter only the two southern districts of Lahul and Spiti.

3.—DIFFERENT NAMES OF LADÁK.

101 103 Ladák, in Tibetan *La-tags*, is the most common name of the country; but it is also called *Mar-yul*,* or

* *dMar-yul* or d*Mar-po-yul*, "Red-land." Csoma de Körös spells the name *Mar-yul*, the "low-country;" but as Hwan Thsang, in A.D.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

101 Low-land or Red-land, and *Kha-chan-pa*, or Snow-land,
103 both of which names are used by the old Chinese travellers; by Fa-Hian, A.D. 400, who calls the kingdom *Kie-chha;* and by Hwan Thsang, A.D. 640, who calls it *Ma-lo-pho.* The name of *Kha-chan-pa*, or Snow-land, is also applied to the Lhasan kingdom of Great Tibet. The two central districts of Great Tibet are *dBus*, and *gTsang*, usually pronounced *U* and *Tsang*, or jointly *U-Tsang.* But the uncorrupted pronunciation is preserved by Ptolemy in *Dabasæ*, who must be the people of dBus; and in Turner's *Pue-koa-chin*, which is most probably *dBus-Kha-pa-chan*, or the "snowy land of *dBus.*" Ladák was formerly subject to Lhasa, to which it paid a small tribute until A.D. 1834, when it was seized by Zoráwar Sing, the enterprising general of Mahárája Guláb Sing, of Jammu; and it now forms part of his new kingdom of Kashmir.

101 Ladák is inhabited by a peculiar race of people, who call themselves *Bot-pa*,* who speak a peculiar language called Tibetan, and who profess the religion of Buddha, under a peculiar hierarchy of monks called Lamas. The name of Tibet is entirely unknown to the people as well as to the Indians, who call them Bhotiyas, and their country Bhutan. The use of the names of Bot and Bhutan is probably not older than the tenth or twelfth century, when the Buddhists, having been expelled from India, the hill country in which they settled naturally acquired the name of Bauddha-sthan or Bauddh-than, and Bod-tan or Bot.

According to Klaproth, Tibet is a Mogul word, which

640, calls it *Ma-lo-pho* or *Mar-po*, that is "red," there is still some doubt about the true meaning of the name.

* The name is spelt *Bod*, but pronounced *Bot*.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

101 should more properly be written Tubet. But the name of Ti-bat (تبت) is mentioned by Abu Zaid Al Hasan, in A.D. 915, by Ibn Haukal in about A.D. 950, by Abu Rihán in 1030, and afterwards by Edrisi in A.D. 1154, all long prior to the Mogul conquests of Changez Khan in the 13th century, before whose time it is highly improbable that any Mogul names could have been in use in Persia. Mir Izzet Ullah says that Tibet is a Turki word signifying shawl-wool: but I should think the shawl-wool was called Tibeti because it came from Tibet. One might as well derive the name of India from indigo. There is no trace of the name of Tibet nor even of Bot in any of the classical authors: but the people are most probably described under the name of Seres, the inhabitants of Chinese Tartary, from whom the western merchants obtained their silks. According to Pausanias,* "the Greeks called the silkworm *Ser*, but the people of Serika probably gave it another name." Now the Tibetans call a worm *Srin*, or *Srin-bu*, and the silkworm *Dar-kyi-Srin;* and Pausanias says that the silkworm was twice the size of a beetle, Σηρην. As the Greeks had not seen the silkworm when they first used the name of Ser, it seems to me more than probable that they would have adopted the native name rather than have invented one of their own.

4.—DISTRICTS OF LADÁK.

634 The different districts of Ladák have been partially
● 103 named according to their relative geographical positions; as *Nub-ra*, the western district (or Wessex), and *Lho-yul*, the southern country (or Suffolk). To the south-east

* VI. p. 26.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

of Ladák, but to the north of *Ngari*, lies the extensive province of *Chang Thang*, or the "northern plains." Ladák itself is called Mar-yul or Low-land, perhaps from its inferior elevation to all the surrounding districts.

Nubra,* or the north-western district of Ladák, includes all the country drained by the Nubra and Shayok rivers. It is by far the largest district in the country, being about 128 miles in length by 72 miles in breadth, with an area of 9,200 square miles. It is bounded on the north by the Kárákoram mountains, and on the south by the Kailas range, which divides the Indus from the Shayok; and it extends from the frontier of Balti, in east longitude 77°, to the Pangkong lake on the borders of Rudok. The mean elevation of the inhabited parts of the country, from an average of fourteen observations at different places, is 12,763 feet.

Ladák is the central and most populous district of the country, from which it is sometimes called *Mang-yul*, or the "district of many people." It stretches along the Indus in a north-westerly direction from Rukchu to the frontier of Balti, a length of 120 miles, with an average breadth of 33 miles. Its area is about 4,000 square miles, and the mean elevation of the inhabited portions, as deduced from observations along the Indus, is 11,500 feet.

Zanskar includes all the country lying along the two great branches of the Zanskar river, in a general direction from south-east to north-west. It is bounded by Ladák on the north, by Rukchu on the east, by Lahul on the south, and by the small districts of Purik and Wanla on the west. The southern boundary is formed by the

* *Nub-ra*, western.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

634 great Himálaya itself, the western boundary by the
131 transverse range of Singgé Lá, and the northern boun-
133 dary by the Trans-Himálayan chain. Its greatest length is 72 miles, but its mean length is not more than 56 miles, and its mean breadth is about the same, or 55 miles. It has an area of 3,000 square miles, and a mean elevation of 13,154 feet, as deduced from seven different observations along the course of the valley. The name [103] of *Zangs-kar** means "white copper" or brass; but I have no idea why it is so named.

Rukchu is the most elevated district in Ladák, and one of the loftiest inhabited regions in the known world. The mean height of the plains, as determined from twenty-one different spots where I encamped in 1846 and 1847, is 15,634 feet. This is the mean height of the great plain of Kyang, which extends from the foot of the Thung-lung Pass to the fords of the Sum-Gal, a length of 35 miles. It is also the height of the plains around the *Tsho-kar*, or White Lake, and of the long sloping plains from the Lanák ridge to the Para river. Rukchu is bounded on the north by Ladák Proper, on the east by the Chinese district of Chumurti, on the south by Lahul and Spiti, and on the west by Zanskar. Its length from the Thung-lung Pass to the head of the Hanlé river is 90 miles, and its mean breadth about 62 miles, which give an area of 5,500 square miles.

Purik, *Suru*, and *Dras*† are three small districts to

* *Zangs-dKar*, "copper-white."

103 † These names are not all Tibetan, as Dras is the Kashmiri name for the district of *Hem-babs*. In Tibetan they are written *Pu-rig*; *Su-ru*; and *Hem-babs*. The last name means "snow-fed or snow-descended,"

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

634 131 133

the west of Zanskar, on the high road between Kashmir and Lé. To *Purik* belong the villages of the Waka and Phugal rivers, from their sources in the transverse range of Singgé Lá to Kargyil, below their junction. The principal places in Purik are Mulbil, Paskyum, and Sod, each of which once had a petty chief of its own. *Suru* also owned a petty chief who lived at Lung Kartse, the principal place in the valley. The river is sometimes called by this name, but more generally by that of Suru. The Suru river joins the Waka-chu immediately below Kargyil. *Dras* is the most westerly of these small districts. Its Tibetan name of Hem-babs (snow-fed or snow descended) is descriptive of its most striking peculiarity, as the most snowy district of Ladák. It owes this peculiarity to the great depression in the Himálaya, at the head of the Dras river, which allows the constantly humid vapours of Kashmir to pass to the north of the mountains, where they become condensed by the cold, and are precipitated in rain or snow, according to the season of the year. These small districts extend in length from the frontier of Balti to Zanskar, a distance of 84 miles, and in breadth from the head of the Suru valley to the Photo-la, a distance of 50 miles. The area is 4,200 square miles, and the mean height of the inhabited parts, as determined by the elevation of thirteen camps, is 11,196 feet.

[103]

[132]

*Spiti** is bounded on the north by Rukchu, on the

Hem being the Sanscrit *Hima*, which has long been naturalised in Tibet. See Csoma's Tibetan Dictionary, *in voce*.

* *Spi-ti*. In Kullu and Kanáwar this district is generally called Piti, but the proper name is Spiti.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

of mountains, which I propose to call the *Trans-Himálaya*, the *Chushal*, and the *Kárákoram*, or *Trans-Tibetan* chains. These names are by no means intended to supersede any that may now exist, but only as descriptive appellations of extensive mountain-ranges which at present have no general names.

1st. The *Trans-Tibetan* range is that which we call the Bolor and Kárákoram, on the west; and which probably merges into the Kuen-lun, on the east.* It is in fact the northern limit of the Tibetan people, and of their peculiar language. To the north are the people of Balti, Ladák, and Chang-Thang, who were known to Ptolemy as the Byltæ and *Chatæ Scythæ*.

2nd. The *Kailás*, or *Gangri* range, runs through the midst of western Tibet, along the right bank of the Indus, to the junction of the Shayok. Neither Moorcroft nor Vigne has given any name to this range, though both of them crossed it several times, and in different places. I have ventured to call it the *Kailás*, or *Gangri* range, because those names are equally celebrated by the Hindus and Tibetans. *Kailás*, or "Ice-mountain," is the Indian Olympus, the abode of Siva and the celestials. *Gang-ri*, or "Ice-mountain," is called *Ri-gyal*, or King of Mountains, by the Tibetans, who look upon Ti-se, or the Kailás Peak, as the highest mountain in the world.†

* Humboldt's Cosmos, vol. ii. p. 154. "The Hindu Kush, or Indian Caucasus, is a continuation of the Kuen-lun of North Tibet."

† *Kailás* means "crystalline, or icy," and is derived from *Kelás*, crystal, which is itself a compound of *ke*, water, and *las*, to shine. The Tibetan name of Gangri (*Gangs-Ri*) means "ice-mountain," and *Rigyal* (*Ri-rGyal*) means "mountain king." This is the origin of the name of Mount *Argillos*, which Plutarch (De Fluviis) gives to the mountain on which Bacchus was born. Mount *Righi*, in Switzerland, is the same as the Tibetan *Ri-ga*, the mountain.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

II.—1st. TRANS-TIBETAN RANGE.

133[X] The *Kárákoram*, or *Trans-Tibetan* chain, forms the natural boundary of Ladák, and the small Musulmán districts of Balti, Hunza-Nager, and Gilgit on the north. Nothing whatever is known of this range to the eastward of the upper Shayok river, and of the northern portion we know but little. At the head of the Shayok river, it is called Kárá Koram, which is a Turki word, signifying the "Black Mountains." To the north of Balti it is known as the Bolor range: but this name is only the common appellation of Balti, amongst all the races of Dardu origin. It is, however, of some value, as it enables us to state precisely that the Bolor mountains, which have hitherto occupied an uncertain position in our maps, are no other than the mountains of Balti. As this district formerly included Hunza-Nager and Gilgit, the Bolor mountains may now be defined as extending for 300 miles from the source of the Gilgit and Yasan rivers, in east longitude 73°, to the source of the Nubra river, in east longitude 77°. From the latter point eastward, as far as the most remote sources of the Shayok river, the continuation of the chain, about 150 miles in length, is best known as the Kárákoram range. The whole length of the chain, from the eastern sources of the Shayok to the head of the Gilgit river, is 450 miles, the general direction being from east to west.

The learned Humboldt supposes the Bolor mountains to be the transverse chain, running from north to south across the Indian Caucasus, and dividing the sources of the Oxus from those of the Yarkand and Kashgar rivers. But that chain is universally called Pamer, a name

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

(Hugh Murray) has apparently corrected the Palow of the older copy to agree with his own identification, and has moreover changed the direction from north-east by *east*, to north-east by *north*, perhaps with a view of bringing it nearer to the true bearing of Kashgár, which is the next place mentioned. Now it is evident from Hwan-Thsang's* statement, that the district of *Pa-lo-lo*, or Bolor, must, in his day, have extended to the north of the Kárákoram range, and that the northern portion from Sir-i-kol to Khafalun, was then, as now, almost uninhabited. This, therefore, in my opinion, is the country which Marco Polo describes.

The Kárákoram Pass was traversed by the Chinese pilgrim Fa-Hian, in A.D. 399.† He calls the range *Tsung-Ling*, or "Onion Mountains," a name which they must have received from the number of wild leeks that grow upon them, and scent the air in all directions. They were found by Dr. Thomson on the elevated plateaux to the south of the pass. Mir Izzet Ullah no doubt alludes to the strong and unpleasant smell of these wild leeks, when he ascribes the headache and difficulty of breathing that are usually attendant on ascending great heights, to the *Esh*, which is a Turki word, signifying "smell."‡

The actual height of only one point in this range has

* Fo-kwe-ki. Appendix. The situation of Belor to the *South* of the Kárákoram is also distinctly proved by the testimony of Abu Rihán, who accompanied Mahmud Ghaznavi to India. Speaking of Kashmir he says, "La partie située au midi et à l'orient appartient aux Indiens, et la partie qui se trouve à l'occident dépend de plusieurs rois, dont *le plus proche* est Belor Shah," that is, the king of Balti.

† Fo-kwe-ki, c. iv.

‡ Quarterly Oriental Magazine, March, 1825, p. 113. The Gerards attributed their headaches to the same cause.

1: Cunningham G-3 (1846-47) 1854 . AJ4 W. Tibetans AJ4

133Y and at 18,500 feet on the northern face. In the south-eastern portion of the range, between the elevated table-lands of Chang-Thang, Rukchu, and Ngári, the snow-limit will of course be higher than in the north-western portion, which divides the valley of the Indus from the Shayok. In the neighbourhood of Lé, therefore, we cannot estimate the height of this range at less than 20,000 feet; and although it may be somewhat depressed between the Pangkong and Tshomoriri lakes, yet it rises again towards the south-eastern extremity, where the lofty peak of Kailás towers over the holy lakes of Manasarovara and Ráw-an Hrad. On this part of the [103] range the snow never disappears, and this fact has originated the name of the mountain both in Sanskrit and in Tibetan, in which languages Kailás and Gangri respectively mean the "Ice Mountain."

The geological structure of this range is chiefly clay-slate, gneiss, and granite. In the neighbourhood of Lé it is wholly of granite of a very coarse texture.

IV.—3rd. TRANS-HIMÁLAYAN RANGE.

This range is a branch of the lofty *Ri-Gyal*, or King of Mountains, which it certainly equals, and perhaps surpasses in height. It branches off from the Gangri mountain to the south of Garo, and extends in one unbroken chain through the districts of Chumurti, Rukchu, and Zanskar, to the junction of the Zanskar river, which rushes dark and turbulent through a vast chasm in the mountain, where human foot has never trod. From this it extends to the junction of the Drás river with the Indus, where it is again cut through by

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

mean height of the crest of the western Himálaya, from Monomangli to the source of the Gilgit river, may be assumed at 19,000 feet.

On this range the snow-line can be determined within very narrow limits. On the three passes crossed by Lieut. R. Strachey,* each about 17,700 feet, no snow was found in September. The Lakhar Pass, 18,300 feet, and the Jayanti Pass, 18,500 feet, were also free from snow. "But the line of perpetual snow was evidently near, for though the Jayanti ridge was quite free, and some of the near peaks were clear, to perhaps upwards of 19,000 feet, yet in more sheltered situations, unbroken snow could be seen considerably below the ridge:" and Lieut. Strachey concluded "that 18,500 feet must be nearly the average height of the snow-line at that place."†

Alexander Gerard found no snow on the Kyobrang Pass (18,313 feet), even in July, and it was equally bare when visited by Jacquemont. On Porgyal, in October, the Gerards‡ found no old snow below 19,400 feet, and their station on the Chang-Razing mountain, 20,400 feet, was also clear; but as Dr. Gerard mentions a range due north, and a peak to the westward, while he is perfectly silent regarding the lofty peaks to the south, it seems certain that their station was on the northern exposure of Porgyal. I can myself vouch for its southern faces being covered with masses of snow in the end of August

* Journal Asiat. Soc. Bengal, vol. xviii. pp. 298, 299.

† See Plate I.

‡ Researches Asiat. Soc. Bengal, vol. xviii. p. 254. The name of Por-Gyal is written *Spor-rGyal*, the "lofty twins," the double Peak of Por-Gyal being compared to the constellation Gemini (*rGyal*) the *s* is sometimes pronounced, just as in the name of Spiti, which is also called Piti, although it is invariably written Spiti by the Lamas.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

Bisahar range, as we have already seen from the observations of the Gerards, the snow remains throughout the year; and as the mean height of the peaks which came under their observation, does not exceed 17,200 feet, it is certain that the northern snow-line cannot be higher than 17,000 feet. From the correspondence of these observations with my own, we may conclude that the northern snow-line of the Bisahar and Láhul ranges is somewhat under 17,000 feet.

According to Herbert, the great mass of the Bisahar range is gneiss. The same rock occurs in the Láhul range, on both flanks of the Rotang Pass: but beyond this it is succeeded by limestone, which forms the crest of the Káli Debi ridge, flanked by silicious schist on the north, and by trap on the south. Beyond this, at the Saj Pass, Dr. Thomson found mica and clay slates; and limestone at the Banahál Pass, on the Pir-Panjál. But the mass of the Pir-Panjál, according to Vigne, is basaltic.

VII.—6th. THE DHAOLA DHÁR or OUTER HIMÁLAYA.

The outer, or Sub-Himálaya, stretches from the bend of the Byâs, at Mandi, to the well-known peak of Gandgarh, on the Indus. It attains its greatest height between the Byâs and Rávi, in the precipitous range of hills called the *Dhaola Dhár*,* or White Mountain, to

* This range is called by several names in our maps; as, "*Mony Mas Kidar*," that is, *Mani-Mahes-ki-dhar*, or the mountain of the holy lake of Mani-Mahes, which, however, is not situated in this range, but beyond the Rávi. Hugel calls the range "Pálam Kidar" and "Chamba Kidar," from the names of the districts to the north and south of the range. The true name is *Dhaola*, from the Sanscrit *Dhavala*, white; and this was most probably the original name written by Abu Rih'án,

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

the north of Kangra. The general direction is from south-east to north-west, as in the other ranges, and the whole length is nearly 300 miles. The Sub-Himálaya is pierced by the Rávi, the Chenáb, the Punach, and the Jehlam rivers, which divide it into several distinct ridges.

The most easterly of these separate ridges is the Dhaola Dhár, which forms the natural boundary between Kullu and Mandi, and between Chamba and Kangra. It is about eighty miles in length, and is of sufficient height to be covered with snow for about eight months of the year. I have observed this range for four successive years, and I can state positively that the snow entirely disappears from it every year, although the crest of the ridge has an average height of 15,000 feet. In the end of November, 1846, I marched from Kangra to Nurpur, and observed these mountains daily, and they were then entirely bare of snow. On the night of the 30th November, snow fell in considerable quantities, and did not disappear until the end of the following rains. In September and October, 1848, when I was at Simla, I observed this range carefully with a telescope, and could not discover a speck of snow on any part of it. Again, on the 16th and 17th of September, 1849, before leaving Simla, and when not a patch of snow was visible with a telescope sufficiently powerful for observing the occultation of Jupiter's satellites, I took the bearing and altitudes of several peaks and passes, for the purpose of verifying the measurements which I had formerly made from Kangra and Nurpur. The following table gives the results of all these measurements.

who calls these mountains بهاتل *Bhátel*, an easy corruption of دهاول *Dhaola*. See Reinaud's "Fragments Arabes et Persans," p. 94.

1s Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

IV.—RIVERS.

I.—GENERAL REMARKS.

123X FROM the lofty mountains around the holy lake of Manasarovara, spring four celebrated rivers, the Indus, the Sutluj, the Gogra, and the Brahmaputra. These four sources are represented in the ancient Chinese maps; and the well-known story regarding them is
823 common both to the Hindus and the Tibetans. The classical Ganges is fabled to flow from a cow's mouth; and to each of these four rivers is assigned an equally wonderful origin. The Indus is said to flow from a lion's mouth, *Singge-kha-bab;* the Sutluj, from an elephant's mouth, *Langchen-kha-bab;* the Gogra, from a peacock's mouth, *Macha-kha-bab;* and the Brahmaputra, from the holy horse's mouth, *Ta-chhog-kha-bab.** The fable is evidently of Indian origin, as elephants and pea-fowl are only known to the Tibetans by pictures, and because the source of the Brahmaputra, or river of Lhasa, is ascribed to *Ta-chhog*, the holy steed of Shakya Thubba, or Buddha.

● 103 * *Kha-po*, or in composition simply *Kha*, is a mouth, and *bab* means "descended." The different names are *Seng-ge-kha-bab*, "lion's mouth-descended;" *gLang-chen-kha-bab*, "elephant's mouth-descended;" *rMa-bya* (pronounced *Ma-cha*)-*kha-bab*, "peacock's mouth-descended;" and *rTa-mChhog-kha-bab*, "Ta-chhok's mouth-descended." Ta-chhok is the name of Sakya's steed, and means "the best horse."

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

133X two feet. At Surmu, the Shayok is also forded by two separate channels, each 300 feet broad, with a depth varying from two to three feet. At the Turtuk bridge, the river narrows to seventy feet, and in the lower part of its course, the Shayok is generally a furious rapid, confined between precipitous cliffs. In the height of summer, when the stream is much swollen by the melted snows, the fords are always difficult. In the winter, the passage is easy; and even in the lower part of its course the Shayok is frequently frozen over, and the stream is crossed upon the ice. I estimate the winter discharge of the Shayok at 2,000 cubic feet, the increased discharge in May at 12,000, and the maximum discharge in August at 18,000 cubic feet.

IV.—THE ZANSKAR RIVER.

139X [103] The *Chiling-chhu*, or Zanskar river, is formed of two principal branches, *Zanskar* proper, and the *Sum-Gal*, or river of the "Three Fords." The head-waters of the Zanskar river are the Yunam, the Serchu (or Yellow River), and the Cherpa, all of which rise to the north of the Himálaya range, near the Bara Lacha Pass. The head of the Cherpa river, which is the most remote source of the Zanskar river, is situated in N. latitude 32° 40′, and E. longitude 78°. The united stream, below the junction of the Cherpa, is not fordable until the end of September; and the Cherpa itself is not fordable after mid-day, even in the beginning of September, as both the rapidity and depth of the stream are much increased by the daily melting of the snow. The united stream, called Lingti, follows a north-westerly course, as far as Phadam, the chief place in the Zanskar district. From

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

On the 10th November, 1838, I measured the Byás a few miles above its junction with the Sutluj. Its breadth was 450 feet, and its greatest depth seven feet four inches. Its greatest surface velocity was 4·04 feet per second, or a little more than two miles and three-quarters per hour. The discharge was then 3,425 cubic feet, from which we may calculate the minimum discharge at not less than 3,000 cubic feet. 133 ×

During the melting of the snows the Byás rises every night in the plains from one foot to one foot and a half. It attains its maximum in the morning and subsides during the day. When I was making the bridges at Govindwál for the passage of the army in March, 1846, I pitched my tent on the sand close to the water's edge, and in the morning I was surprised to find one line of tent-pegs completely under water. This rise is caused by the melted snows of the Dhaola Dhar, which are brought down during the day by the Binwa, the Nigwal, the Bán-Ganga, and the Gaj, and which do not reach Bhairowal and Govindwál until past midnight of the second day, after a lapse of 36 hours. The Byás is fordable in many places in the plains.

XI.—THE SUTLUJ RIVER.

The *Sutluj* is the largest and longest of all the Panjáb rivers. Its Sanskrit name is *Satadru*, or the "hundred channelled," from which the Greeks made Hesudros and Zadadros; but the common names throughout the hills are Satludr, or Satrudr, and Sutluj. The Tibetans call it *Lang-chhen-kha-bab*, or "elephant-mouth-fed" river, according to the commonly received notion of the descent of rivers from animals' mouths. 103 ●

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

V.—LAKES AND SPRINGS.

133 [103] ALL sheets of water are known by the general name of *Tsho*, which is applied to the smallest pond as well as to the largest lake: as *Tsho-Máphan*, the Manasarovara Lake, "which is about sixteen miles square," and *Kyang-Tsho*, the "Wild Horses' Pond," which is a mere seasonal puddle of melted snow. The ocean is called *Gya-Tsho*, or the "Vast Lake."* The proper appellation, however, for a small piece of water is *Tshá-hu*; but the pronunciation of the two words is so much alike that the difference is almost imperceptible. In fact none but Lamas ever make the distinction, either in writing or in utterance. With a single exception, all the lakes of Ladák are land-locked, and consequently more or less salt; although the time has been when every one of them poured its tributary waters into the affluents of the Indus.

The *Pangkong*† Lake is a very long, narrow sheet of water, extending from east to west through the whole length of Ruthog, in N. latitude 33° 40′, to the neighbourhood of Chushal, from whence it trends to the north-west for about twenty-five miles, and forms the boundary between Ladák and Ruthog. Its eastern extremity is

* *mTsho*, a lake; *rGya-mTsho*, the great lake.

† *mTsho-dPangs-kong*, "Lake of the great hollow."

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

unknown; but from the neighbourhood of Ruthog to its north-western extremity beyond Pangmik, the Pangkong Lake is not less than eighty-five miles in length, with an average breadth of about three miles.* The extent of the known portion is, therefore, upwards of 250 square miles, or about the same size as the holy lake of Manasarovara. The superior size of this lake may be inferred from the probable etymology of its name, *Pang-kong*, which means the "extensive concavity" or hollow; or *Pang-khung*, the "extensive pit." The water is clear and extremely salt.† This lake has been surveyed by Captain H. Strachey, whose observations place it at an elevation of 14,224 feet above the sea. In former ages there can be no doubt that the Pangkong Lake had an outlet at its north-western extremity, through a gorge in the limestone cliffs,‡ into the present scanty stream that passes by Muglib, and joins the Shayok river just above the village, which gives its name to the stream. At some remote period, therefore, the waters of the Pangkong Lake must have been fresh; a fact which has been placed beyond all doubt by Captain H. Strachey's discovery of fossil shells of *Lymnæa auricularia* in the ancient clay deposits above the present level of the lake. The mountain-ranges at the north-western extremity of the lake are of limestone, which probably affects the waters of the lake, as the small pebbles on its shores are firmly united together by calcareous matter.

The *Tsho-Rul*,§ or "Bitter Lake," is situated about five miles to the south of Pangkong. It is about sixteen miles in length, and somewhat less than two miles in breadth.

* Moorcroft, I. p. 435. † Ibid. I. pp. 434-35.

‡ This gorge was traversed by Moorcroft (I. 434.)

§ *Rui-ba* bad, fetid, bitter.

1; Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

133X [172] breadth. Its waters are extremely bitter. On its shore Captain H. Strachey likewise found fossil shells of the *Lymnæa auricularia* and of some kind of *Helix*, of which the specimens are perhaps too small to be identified with certainty. The waters of this lake must, therefore, once have been fresh.

133X The *Tsomoriri*,* or "Mountain Lake," is a very fine sheet of water, about sixteen miles in length from north to south, and from two to three miles in breadth. It is situated in the middle of the elevated district of Rukchu, in N. latitude 32° 50′, and E. longitude 78° 15′, at a height of 15,000 feet above the sea. Its name is characteristic of its situation in the midst of mountains, by which it is completely shut in. The summits of these mountains rise to a height of about 5,000 feet above the lake, and 20,000 above the sea. To account for its name, the Ladakis have invented a story, which though silly enough, is quite as good as many that have been gravely recorded by learned Greeks. The story was probably originated by the inventive Kashmiris. "A woman riding a yák was carried into the lake. At first the yák swam boldly out, and the woman was delighted: but after a time the animal grew tired, and sank deeper in the water. The woman (*chomo*) became frightened, and screamed out *Ri-Ri, Ri-Ri*,† until the yák sank and she

* *Tsho-mo-Rhi-ri*, "Lake Mountainous."—Running water, being active, is considered as a male, as *Tsang-po*, the river of *Tsang*;—and still water, being passive, as a female, as *Tsho-mo*. *Po* and *Mo* are the masculine and feminine affixes, but they are seldom used in composition. *Ri* is a mountain; and *Rhi-ri-yi*, or simply *Rhi-ri*, is the adjective, mountainous.

† *A-ra-ra*, commonly pronounced *Re-re*, or *Ri-ri*, is the Tibetan exclamation of surprise or fear. As the word is written with an initial vowel, it is certainly borrowed from the Indian *Ari-ari*, for there is no word in the Tibetan language beginning with a vowel that is not of foreign origin.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

823
103 ●

was drowned: since which the people have always called the lake *Chomo-Riri.*"

133*

This lake has no outlet at present, and the waters are consequently brackish, although not very perceptibly so to the taste. But the time has perhaps once been, when the Tshomoriri lake was a noble sheet of fresh water, about thirty miles in length, from the foot of the Nakpo Gonding Pass to the low ridge that now separates the lake from the bed of the Párá river. When encamped at the south end of the lake in September, 1846, both the late Mr. Vans Agnew and myself estimated the height of this ridge at 700 feet; but it must have been somewhat more, as the bed of the Parang river at Norbu Sumdo is 15,700 feet. From this point, however, the apparent height of the ridge is not more than 150 feet. This will make its actual height above the lake between 800 and 900 feet. Such, therefore, must have been the depth of the lake in former days, if, as is supposed, it once had an outlet towards the Párá river. In September, 1846, I was encamped for three days on its banks. The water was beautifully limpid and of a deep blue colour. Here and there I observed white patches of saline matter, but I could not discover any shells. The salts are hydro-chlorate of soda and hydro-chlorate of magnesia. I could not see any fish in the water, but the wild fowl were numerous at the northern end of the lake. On the 18th September I fixed a pole in the water, which I examined twice during that day, and again early the next morning; but I found no perceptible difference between the levels of the day and night. The extra quantity of water that is supplied during the day by the melted snow must, therefore, be compensated by the greater evaporation during the heat of the day. In the same month of

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

the year, Dr. Gerard* could not find any water-mark above five feet, which he consequently fixed as the limit of fluctuation; but I doubt whether the rise and fall of the lake amount to so much as one foot. In the middle of May, Trebeck† says that it is "frozen over sufficiently to be crossed by a man;" and according to the information that I received, it is usually frozen over by the end of October. During the winter there can be no fluctuation of level, as the whole surface of the ice is protected from the sun's rays by a mass of snow about knee deep. Towards the end of May or the beginning of June the ice breaks up and melts, and by the end of July the surface of the lake attains its highest level, which from the water-marks that I saw, cannot be more than one foot above the winter level.

Thogji-Chanmo is the name of the "Salt-covered Plain,"‡ in the midst of which lies the *Tsho-Kar*, or "White Lake," or as it is called by the Hindus of Chamba and Bisahar, *Khaori-Talao*, or the Salt Lake. It is situated about thirty miles to the north-west of the Tshomoriri, in N. latitude 33° 15′, and E. longitude 77° 50′, at an elevation of 15,684 feet§ above the sea. It is extremely irregular in shape; its greatest length from east to west being about five miles, and its extreme breadth about two and a half miles. It is supplied at its south-eastern corner by a small stream ten feet broad and one foot deep, which flows slowly from a small fresh-water lake. In the middle of the south side, where a

* Researches As. Soc. Bengal, vol. xviii. p. 259.

† Moorcroft's Travels, II. p. 52.

‡ The proper name is probably *Thang-Tsha-chan-mo*, "Plain-salt-full-of."

§ Dr. Gerard, As. Res. Bengal, vol. xviii. p. 260, makes the elevation 15,500 feet.

[1 i.e., the lake Chomo-Riri - ANALYST.]

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

insignificant, that the Suraj Dal may fairly be considered, as it is reputed to be, the source of the Bhágá river. But the Chandra Dal, although double the size of the Suraj Dal, is situated at least twenty-five miles below the real source of the Chandra river, in the Bara Lacha Pass. It is, however, always spoken of as the source of the Chandra river. Dal is a Kashmiri term for any sheet of water, whether large or small: but it is also a Tibetan word, signifying "still, quiet."*

Many hot springs exist in different parts of Ladák; but the best known are those of Nubra, Puga, and Chushul. The first two were visited by Moorcroft, who found the waters "quite clear, and of the same temperature of 167°, at mouths distant two hundred yards from each other." Below the springs were beds of soda.

The hot springs of *Puga*,† I have myself examined. The springs occur in the bed of a rivulet called the Rulang-chu, for a length of about two miles. The springs vary in strength, from gentle bubbling to strong ebullition, and in temperature from 80° to 148°, the hottest containing chloride of soda and sulphuretted hydrogen in solution, and those of low temperature containing chloride and borate of soda, both in solution. Sulphur occurs on the northern bank of the rivulet in pure transparent crystals, and in thin laminæ disseminated throughout the gypsum rock. The volcanic neighbourhood of Puga is something like that of the Tuscan lagoons near Monte Cerbole, which now supply Europe with the same minerals: "These lagoons consist of springs in a furious state of ebullition, whose vapours

* *Dal*, "quiet;" compare the English "dull."

† *Bu-ga*, a hole.

I: Cunningham G-3 (1846-47) 1854 AJ4 W Tibetans AJ4

X.—PASSAGE OF RIVERS.

491
501

The great rivers of Ladák are crossed by ferries, fords, and bridges. Fording is the most usual means of crossing both the Indus and the Shayok, in the upper parts of their sources, where their waters are widely spread and shallow. In the neighbourhood of Lé, where the Indus becomes deep and rapid, it is spanned by three bridges, and just below Lé, where the current is less rapid, people are ferried across on inflated skins. The Zanskar river is bridged in two places: and is not I believe ever fordable. In Láhul the Chandra and Bhaga rivers are both bridged; but I have seen the Chandra forded at Koksar in October, and I have been ferried across it at the same place in September. In Spiti, the Párá river is crossed by a natural bridge formed of an enormous mass of rock that has fallen across the stream; and the Spiti river itself is bridged in several places. In the winter season it is fordable in many places.

● 103

A ford is called *Gal* in Tibetan; and the name is applied to one of the principal branches of the Zanskar river, which is called *Sum-gal*, or the "Three Fords," because it is formed of three streams that are forded one after the other just above their junction. In the summer the fording of many of the streams can only be accomplished in the morning; for after ten and eleven o'clock the waters are so much increased by the melted snows that they become quite unfordable. This I have myself witnessed with the Chandra river in October, and with the Charpa river in September; and I have ascertained that it is also the case with the Spiti river.

491
132

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

pippilaka, or common large ant." This belief, however erroneous, as the learned professor observes, was neither extravagant nor irrational. A yet earlier mention of the gold of Alpine India is that of Ctesias; but he distinctly states that it was not obtained by washing, as in the river Pactolus.* Gold is called *Ser*, gold-dust *Ser-dul*, and the gold-washer *Ser-pa*. This name I believe to have been the origin of the classical *Seres*. In Tibetan *Serki-yul* means the "gold country;" and as the affix *yul* can be omitted at pleasure, the names of Serki and Serika are almost identical.†

Copper.—According to Moorcroft, "some copper-mines are said to have been discovered towards Kashmir."‡ This statement is probably correct, as Jacquemont found copper ore in the Lidar valley, on the south-west side of the range which divides Kashmir from the Ladáki district of Suru. If any trust can be put in a name, I should suppose that copper (*zangs*) had been found in *Zangskar*, but I could not learn that it had been discovered there.

Lead and *Iron* are, according to Moorcroft, found in pits in the mountain districts remote from Lé.

Plumbago is found in Balti; but the specimens which I procured are of an inferior description. They are gritty, and will not mark paper without scratching; but as they were most probably taken from the long-exposed surface, good black lead may still perhaps be found in the same place.

Sulphur, called *Muzi*, is obtained only at Puga, in

* Fragments of Ctesias by Lion. Indica, XII. Ἔστι δὲ καὶ χρυσὸς ἐν τῇ Ἰνδικῇ χώρᾳ, οὐκ ἐν τοῖς ποταμοῖς εὑρισκόμενος καὶ πλυνόμενος, ὥσπερ ἐν τῷ Πακτωλῷ ποταμῷ.

† *gSer*, gold; *gSer-rDul*, gold dust. ‡ Travels, I. p. 313.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

141

	Districts.	Men.			Women.			Landlords.		
		Tallest.	Shortest.	Average	Tallest.	Shortest.	Average.	Tallest.	Shortest.	Average
		ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
Musalmans.	Chhorbad	5 8·0	4 8·0	5 0·9	5 0·0	4 4·0	4 9·3			
	Khapolor	5 7·0	4 6·0	5 0·7	5 2·0	4 2·0	4 9·1			
	Keris	5 5·0	5 0·0	5 2·9	4 11·0	4 8·0	4 10·6			
	Parguta	5 9·0	4 10·0	5 3·5	5 4·0	4 4·0	4 8·5			
	Skardo	5 11·0	4 9·0	5 2·3	5 0·0	4 6·0	4 9·7			
	Shigar	5 5·0	4 4·0	5 0·4	4 11·0	4 8·0	4 9·4			
	Rongdo	5 7·0	4 9·0	5 2·1	5 0·0	4 7·0	4 9·7			
	Average			5 1·8			4 9·5			
	Average of Botis			5 1·8			4 9·35			
Hindu Botis.	Upper Kanáwar	5 6·0	4 11·0	5 1·9	5 1·5	4 4·5	4 9·0	5 8·0	5 4·0	5 5·9
	Middle Kanáwar	5 6·0	4 9·0	5 2·0	5 5·0	4 9·0	4 11·1	5 8·0	5 0·0	5 5·3
	Lower Kanáwar	5 9·2	4 11·0	5 4·1	5 6·0	4 10·0	5 1·2	5 7·0	5 7·0	5 7·0
	Average			5 2·0			4 9·7			5 6·1

144

In this table the effect of the admixture of Hindu blood will be seen at once in the superior stature of the people of Lower Kanáwar.* Those of Middle Kanáwar also occasionally intermarry with the Hindus; for I found a woman, named Charanu, a native of Saráhan, near Rampur, who was wedded to two husbands in the village of Kala, opposite Labrang, in Middle Kanáwar. In fact the people of Kanáwar generally are called Kanets, a name which is said to designate a people of mixed race. The proper name of the country is therefore most probably *Karanáwara*, the country of *Karanas*, or people of mixed race, a name usually applied to the offspring of a degraded Khsatriya and a Khsatriya

[103]

* The Botis are shorter than the Kirghiz of Wakhan and Pamer who were measured by Wood.—Oxus, pp. 338—372.

	Tallest.	Shortest.	Average.
Men	5 5·5	... 5 2·0	... 5 3·2
Do.	5 7·2	... 5 1·7	... 5 4·5
		Mean	... 5 3·85

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

144 female. The same name is applied by Marco Polo to
[103] another mixture of the same races—Tartars and Indians. There are indeed Kanets in other parts of the Himálayas, but only in those districts which border upon Ladák; as in Bisahar, Kullu, Chamba, and Kashtwar.

141 The average stature of the Botis of Ladák appears to
146 me to be very short indeed when compared with that of their Hindu and Chinese neighbours; but that this is chiefly, if not wholly, the effect of poor food and of privation of all kinds, is proved by the average stature of the landlords, or head men, of the different villages. These never carry burdens on their backs, are better fed, and better clothed; and (when they travel) usually ride from one place to another, instead of toiling up and down the steep and rugged passes of their native mountains. This shows the beneficial effect of wholesome food and of comparative comfort even in the most rigorous climate.

141 The stature of the women seems to be particularly low. This is not, however, shown in the averages, which exhibit a difference of only four inches between the men and the women. But the number of very short women is much greater than that of very short men. In Ladák I saw only six men that were under five feet in height; of whom two were four feet eleven inches; three were four feet ten inches; and one was only four feet nine inches. Amongst the women of Ladák, however, I saw no less than ten that were under four feet five in height. Of these, one was four feet four and a half; two were four feet four; one was four feet three; two were four feet two; one of forty years of age was four feet one and a half; and three were only four feet one inch in height. I am unable to say positively what may be the cause of

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

175 unfinished. His reign probably extended from A.D. 1600 to 1620.

Jámya was succeeded by his eldest son *Singgé Namgyal*, who, feeling emulous of the military fame of his uncle *Chovang*, began his reign by conducting an expedition into the districts of *Gugé*, *Kiprok*, and *Tipichangyap*, from which he carried off many cattle and other property of the zamindars. During his reign
175 a monk, named *Staktshang-Raspa*, who had travelled
778 through *Gyagarnag*, *Urgyan*, and *Kháché*,* arrived at the village of *Tamosgang*,† in Ladák, where he made and consecrated an image of Chamba.‡ To this image he attached five monks for the performance of daily service, and having seen the complete establishment of the worship, he gave away in alms all that he possessed and departed.

175 After this Ahmed Khán, the chief of Balti, with the assistance of Jehángir Shah, invaded Ladák with a very large force; but *Singgé Namgyal* having collected his own troops to oppose them,§ the invaders were defeated

103 * *rGya-gar-nag*, literally the "white and black plains," that is, India and China. *U-rgyan*, the country of mixed races, perhaps the Indo-Persian district of *Udyána*, and the valley of the Kábul river. *Khá-chhe*, Kashmir.

† *gTang-mo-sgang*, on the right bank of the Indus below Lé. It is now the most populous village in Ladák.

‡ *Byams-pa*, pronounced *Chamba*, the "Clement." This saint is now very popular in Ladák. He is the future Buddha, MAITREYA.

§ Jehángir reigned from A.D. 1605 to 1628. The defeat of the Baltis may therefore be placed about A.D. 1625. This defeat is confirmed by the chronicles of Skardo, which (according to Vigne, *Kashmir*, II. p. 253) refer the loss of Ladák to the reign of Ahmed Khan, the son of Ali Sher. The subsequent invasion of the Lhásan territory probably took place in 1630. It is at least certain that these events could not have occurred later than 1630–1635, because in 1640 the celebrated and

L: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

with great slaughter at *Kharbu*.* After this victory the king returned to his capital, and then proceeded at once against the people of *Gugé*, *Chaprang*, and *Lomostang*, who had taken advantage of the Muhammadan invasion to rebel against the authority of Ladák. They were quickly reduced by the active Singgé, and at the same time he took the opportunity of adding the neighbouring district of Rudok to his kingdom. Flushed with success, Singgé Namgyal next determined to attack Lhása itself; but when he had advanced as far as *Sri Kirkir*,† he was met by a deputation from the people of the country, headed by *Deba-Changpa*, with several mule-loads of gold, silver, tea, and other articles as a peace-offering. On receipt of this present, Singgé Namgyal consented to evacuate the Lhásan territory. Accordingly he fell back to Lomostang,‡ and afterwards took possession of the districts of *Purang*, *Gugé*, *Zanskar*, *Spiti*, *Purik*, *Mangyumla*, *Sedakh*, and *Shakyamcho*.§

ambitious Grand Lama *Navang-Lozang* had conquered the whole of Tibet.

* *Khar-bu*. There are two places of this name in Ladák, the larger of which is situated on the left bank of the Kanji river. The other stands on the right bank of the Drás river. The battle must have been fought at the former place, because it is on the high road from Balti to Lé, whereas the Kharbu of Drás is out of the way.

† *Shi-ri-Kyir-kyir*. This means a "winding or whirling stream," and is probably the river *Sekor* of our maps, which joins the *Tsangpo* about half-way between Lé and Lhása. *Kyir-kyir*, "circular," is evidently the same word as the Latin *circulus*, and the Greek κυκλος.

‡ This is probably the Stang of our maps on the right bank of the Sutluj, and on the high road between Spiti and Garo.

§ *Purang*, a district of Ngári to the west and south of the Mánasarovar lake, and the *Pruang* of Capt. H. Strachey's map. *Gu-gé* is also a district of *Ngári* to the west of *Purang*; its chief places are Chaprang and Toling. The districts of Zanskar and Spiti are well known. *Pu-rig* lies upon the Kanji and Waká rivers, to the eastward of Suru; its chief places are Kharbu and Paskyum. *Mang-yum-la* is certainly the district

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

175 prohibited his troops from cutting the corn, which was then ripe, and his politic conduct was rewarded by the immediate submission of the zamindars, who came over to him in a body, and placed themselves under his protection. The Vazir then built a small fort,* which he occupied for a month. He next advanced to *Shakhar*,† where there was a fort belonging to Thai Sultán, and having reinstated the zamindars of Janguri and Shakhar in their villages, he made a summary settlement of the district by imposing a tax of four rupees upon each house.

3. Leaving thirty-five men in the fort and ten men over the bridge, the Dogras advanced by *Langkarchu* ‡ and *Manji* to the bridge of Paskyum, where they were again opposed by the Ladákis. The struggle was desultory and protracted, the Dogras losing only seven killed, while the Botis had fifty or sixty killed, and a greater number wounded. By a skilful manœuvre the Ladákis effected their retreat across the bridge,§ which they then broke down. On the following day, however, the Dogras managed to cross the river on inflated skins without opposition; on which the chief of the place abandoned Paskyum, and fled to the fort of Sód,‖ where, with the zamindars of the district, he determined to hold out.

* This is the fort in Vigne's map called "Kilah Sura Kurri," belonging to Gulab Sing.

† *Shá-mKhar*, the fort of *Sha*.

● [103] ‡ The Lang-kartse of Moorcroft. The true name I believe is "*Lung-karj-chu*," or the "valley of the Karj river." The bridge here mentioned is that which was crossed by Moorcroft on his journey to Drás.

§ The Waká-chu is not fordable at Paskyum, and the bridge is within musket-range of the fort, and of numbers of houses on the northern bank of the stream.

‖ *Sód*, the Soth of Moorcroft, who mentions an interview that he had with the Raja at Paskyum.

1: Cunningham G-3 (1846-47) 1854 AJ4 W. Tibetans AJ4

introduced for more than seventy years, until, in A.D. 971, it was finally restored, and has since continued to be the dominant religion of Tibet.

The great spread of the *Pon-gyi-chho*, or Pon religion, can be best appreciated by the traces of its former existence in the widely distant regions of Arakan and Ladák. The people of Arakan give a long line of fifty-five *Pun-na* princes* as their earliest sovereigns, a dynasty which must have reigned for at least 600 years. In Ladák the great monastery of *Lama Yurru* is still called *Yung-druny-Gonpa*, or the "monastery of the mystic cross." The establishment of this monastery is attributed to Naropa, a Lama from Brigung, near Lhasa; but it seems more probable that the name of *Lama Yurru* was derived from the Lama, because he had suppressed the faith of the mystic cross (*yung-drung*), and had established the Lamaïc doctrine of Buddhism.

But Buddhism was the prevailing religion of Ladák from the conversion of the people by Asoka's missionaries down to A.D. 400, when Fa Hian visited India. At that time he found Buddhism flourishing in the little state of *Kia-chhe*, or Ladák, as well as in Kotan and other small states to the northward of the Tsung Ling, or Karakoram. The king of *Kie-chha* (Kha-chan, or "Snow-land)" still celebrated the great quinquennial assembly† of the Srámanas which had been established by Asoka. The ceremony, which lasted for one month, was conducted with becoming gravity, and closed by the

* Journ. As. Soc. Bengal, XIII. p. 31,—Captain Latter.

† In the Gyalpo's time, the Lamas assembled annually at Lé, in the month of *Táng-po* (March), and were dismissed with presents. They now assemble at Hemis, in June. In this monastery there are still 160 Lamas.

565
463 LABOURER--hlápa (general), khurpa (load carrier), thralpa or thalpa or sáthalpa (the unpaid labourers who in old days were attached to the Raja's palace).

101 LADAK--The most westerly Province of the country known to Englishmen as Tibet, is called Ladák or Ladág, though in books and classical writings the word is written "Látaks," with the first syallable long and the second short.

Europeans frequently, and Indians and Central Asians invariably, speak of the country as "Ladákh," but this is quite incorrect.

●103 The word "Tibet" is unknown to the people of the country, who, if they know anything of geography, speak of Western Tibet as "Ladák," Central Tibet as Ootsang, and Eastern Tibet as Kham. It has been suggested that as "tibit" is the Persian for the finest kind of shawl-wool, and as that commodity comes from Tibet, the country was therefore named "tibit" or "shawl-wool." This explanation does not recommend itself to Major Cunningham, who says "one might as well derive the name of India from indigo." I would venture to express a different opinion. It seems to me that just as certain islands are known to Englishmen as the "Spice Islands," and to Germans as the "Gewürz Inseln," owing to the fact that spices are obtained therefrom, so the country from which the Central Asians obtained shawl-wool, may have received from them the name of "Tibet" or "shawl-wool."

101 Cunningham says that Ladák "is still known as kha-pa-chan or kha-chan," i.e., abounding in snow or "snowland." This is not quite correct, for though in books, the country, known as Ngáreeskhorsum, is alluded to as "kháwáchan," or "kángschan" (meaning "snowy" or "icy,") those terms, if used in Ladák, in the course of conversation, would not be understood. There are, however, four other names by which Ladák is known to educated Tibetans, namely, (1) Mangyool; (2) Ngárees; (3) Maryool; (4) Máryool" or "red country," tradition is that once upon a time a king of Lhása died, leaving two sons, one legitimate and the other illegitimate. The illegitimate son took possession of the throne, and the other son fled to Poorang (the country between Kumáon and the Mánasarwar lake), where sometime later, three sons were born to him. When these sons grew up, the father gave countries to each of them, the most western of these (Ladák), where the clouds were red at the time of sunset, he called Máryool.

[173]

The word "maryool" means "low land" and is an apt name, as Ladák

13: Heber and Heber D-3 (1914-25) 1926 AJ4 W. Tibetans AJ4

CHAPTER IV

Over the Zogi Pass

THE road between Leh and Srinagar, the summer capital of the Maharajah of Kashmir, and a popular hill station for the white man, is one of the chief highways to Central Asia, bearing its trade to and from India.

No wonder that one of the meanings attributed to the Zogi La, the dread pass that closes this road in winter, is the place of four meetings, for the roads from Tibet, Yarkand, Baltistan and Kashmir all converge here.

This road has been described by so many travellers, that it would be redundant to add another detailed account of the journey up to Leh. Suffice it to mention some of the outstanding features and incidents that have impressed themselves on one who has traversed it several times, and for whom most of its turns and corners bring to memory an additional reminiscence. The lower or Kashmir side of the pass includes the first stage to Ganderbal which is generally accomplished either by motor, for a car may go even another five to six miles to the Suspension Bridge which spans the Sindh, or by boat down the Mar Canal and across the Anchar Lake when there is enough water, otherwise taking an extra night and going down the river Jhelum to its meeting place or " wedding " with the Sindh river at Shadipur and then up to Ganderbal. Having once effected a junction with the Sindh, the marches from Ganderbal onwards lead directly up the Sindh river to the foot of the Zogi La. This valley is known to so many thou-

13: Heber and Heber D-3 (1914-25) 1926 AJ4 W. Tibetans AJ4

the Sindh valley narrowing and just make out the snow-covered crest of a mountain which barred its upper end and indicated the site of the pass, about which we must say a few words.

The name Zogi La has another meaning attributed to it by the Tibetan, as well as the one just alleged, one which indicates the terrors that abound when winter holds it in its icy grip, namely the place of four demons. It is a pass of 11,500 feet, which separates Kashmir and what to many represents civilization, from the wild uplands of the Himalayas and the mysteries of the "distant morning lands" of Central Asia. Though its altitude is not very high for a pass, only equalling that of Leh, its difficulties are great. The summer road should be open from 15th May to 15th November, for on those dates the rates of transport alter from the high winter ones indicating coolie porterage only, to the lower summer ones of pony transport. In winter the difficulties are often insuperable owing to soft snow, blizzards and biting winds, and often the mails are delayed two or three weeks before the runners dare attempt the crossing, the telegraph wires themselves not infrequently breaking with the weight of snow. Traffic is at a standstill from mid-December to early March, save for adventurous travellers who, even then, it is stated, get themselves carried over in baskets on the backs of coolies, sturdy inhabitants of the villages bordering the Ladak side of the pass. In the centre of the Zogi La is a rest-house, often up to the eaves in snow, called Machoi, situated on the top of a small sharp hill, one side of which is sheltered from the prevailing winds, and has two or three small buildings, a serai and a telegraph office nestling under it. The telegraph master must have a dreary time in winter, and in the middle of May is moved to another post higher up on the road to Leh. The winter of 1924–5 was exceptionally mild and very little snow fell on the pass. April in Kashmir was a very hot month, more like June, and it was expected that the pass

13: Heber and Heber D-3 (1914-25) 1926 AJ4 W. Tibetans AJ4

sparsely populated regions the people are so interesting, for the customs and ways of the unadulterated lamaism often differ considerably from those of the high road.

But let us now accompany the " padre " and the " doctor " in their trek from Ladak through Zankskar to Lahoul, and home *via* the Plains, thus traversing the whole of the Himalayan ranges from north to south, except the most northern, named the Karakoram Range. Leaving Leh we must first travel down the high road towards Kashmir for four days, that is along the Indus as far as the foot of the Lamayuru gorge. But let us remember the real name of this river is the " Senge Kabab," which means the one which " descends from the mouth of the Lion." The Tibetan names of the other rivers flowing from the region of the holy lake, Manosarowar, also indicate the true sources of their mighty waters, for does not the Sutlej or " Langchen kabab " descend from the mouth of the elephant, the Gogo is the " Mamzhi kabab " descending from the mouth of the peacock, while the Brahmaputra or " Damchog kabab " descends from the ear of the horse. In our Western ignorance we often garble these Tibetan names. Thus Darjeeling should be called " Dorjhe Ling " the " Country of the Thunderbolt," whilst Kalimpong is our distorted version of " Kalonpug," the cave of the prime minister. But let us get back to Lamayuru whence our road turns due south across that division of the Himalayas known as the "Ri-gyal" or mountain king range. Our first march takes us over a small pass to Wanla, and we must get used to Passes, as within a short period we have to cross fifteen, of which all but five are fairly high ones. Wanla is a pretty village and shows signs of having been an important one. Crowning the hill which dominates the village is a fine old ruin, and behind it a most peculiar built monastery, in many places resting on beams which look so insecure that they must give way on the slightest provocation. That they still hold is doubtless

121 reached northwestern India, or, rather, the
101 foothills of the Himalayas on the Indian
side, we heard that a certain amount of
polyandry existed among the hill people.
121 We went up to where they were reported
101 to exist and found that polyandry had died
131 out, but kept on looking further until we
595 actually ended up on the Tibetan plateau,
about 12,000 feet up, and found a very
103 active polyandrous society among both the
nomads of Rupchu (a plateau bordering
on Kashmir and Tibet) and the inhabi-
[162] tants of Ladak. The latter is a province
of what today is the state of Kashmir,
entirely inhabited by Tibetans and situated
in the upper Indus valley at the point
where the Indus leaves Tibet and enters
Indian territory. Later, we went towards
central Tibet and investigated polyandry
in Sikhim, which is a little state bordering
on Tibet and sandwiched between the
states of Nepal and Bhutan in the east.

121 The people living in western Tibet live
131 in an isolated position. The country is
595 very barren and, because of the altitude
114 and the difficulties of travel, the people are
very inaccessible. These, naturally, are
excellent conditions for such a peculiar
custom as polyandry to survive and I am
sure that, if Tibetan polyandry is so active
and well-preserved as it is there, it is due
to the physical environment which favors
isolation among these people. In the area
we visited, 90 per cent of the population
was polyandrous and I understand that
nearly all the inhabitants of the vast
[NJ] Tibetan country, of which there are some-
thing like three million, are polyandrous,
though, of course, it would take actual
first-hand investigation to be absolutely
sure that this is the case.

595 The polyandry practised among the Ti-
121 betans is of both the fraternal and the non-
fraternal type, that is, when a young lady
marries a young man she either marries
all his brothers regardless of age (she can
even be the wife of children born after her
marriage), or she can take as many hus-
bands as she desires, without their being
related as brothers, at her discretion. I

24:Peter E-5 (1938)1963 AJ4 West Tibetans AJ4

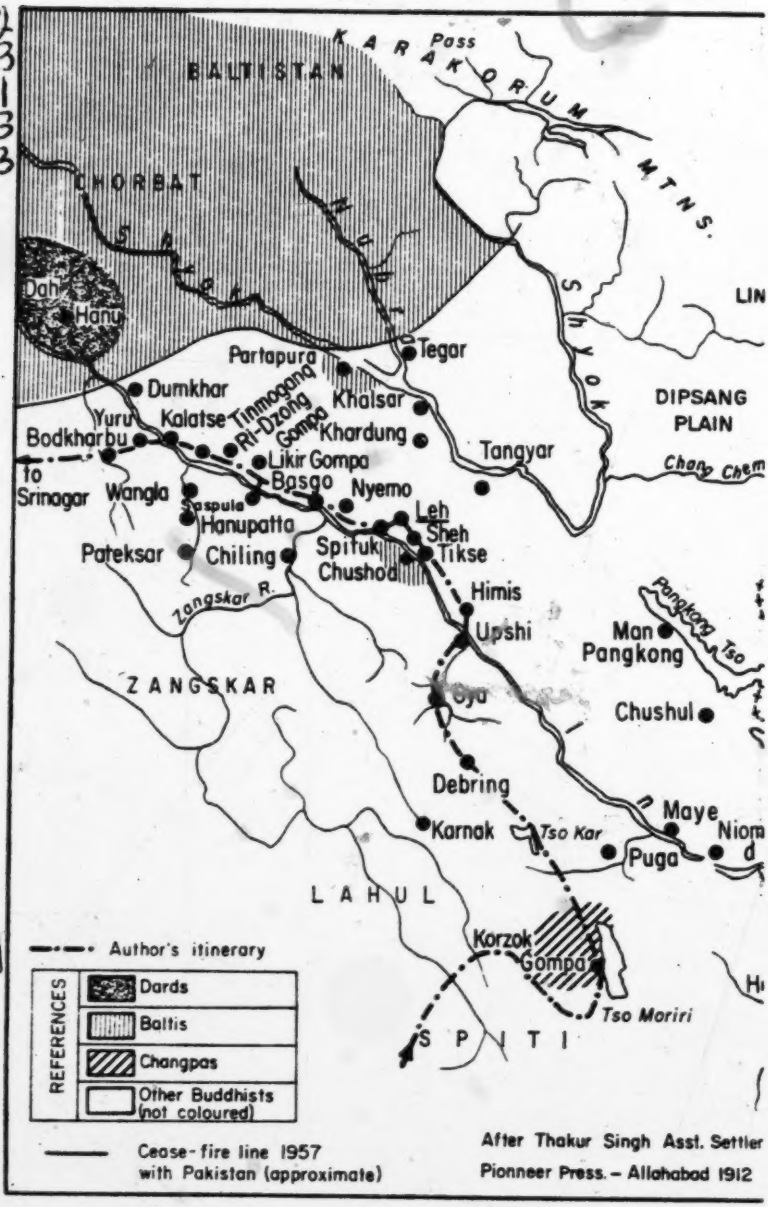
101
102
103
131
133

[114]

Map IV. Sketch map of Lahul.

0 5 10 miles

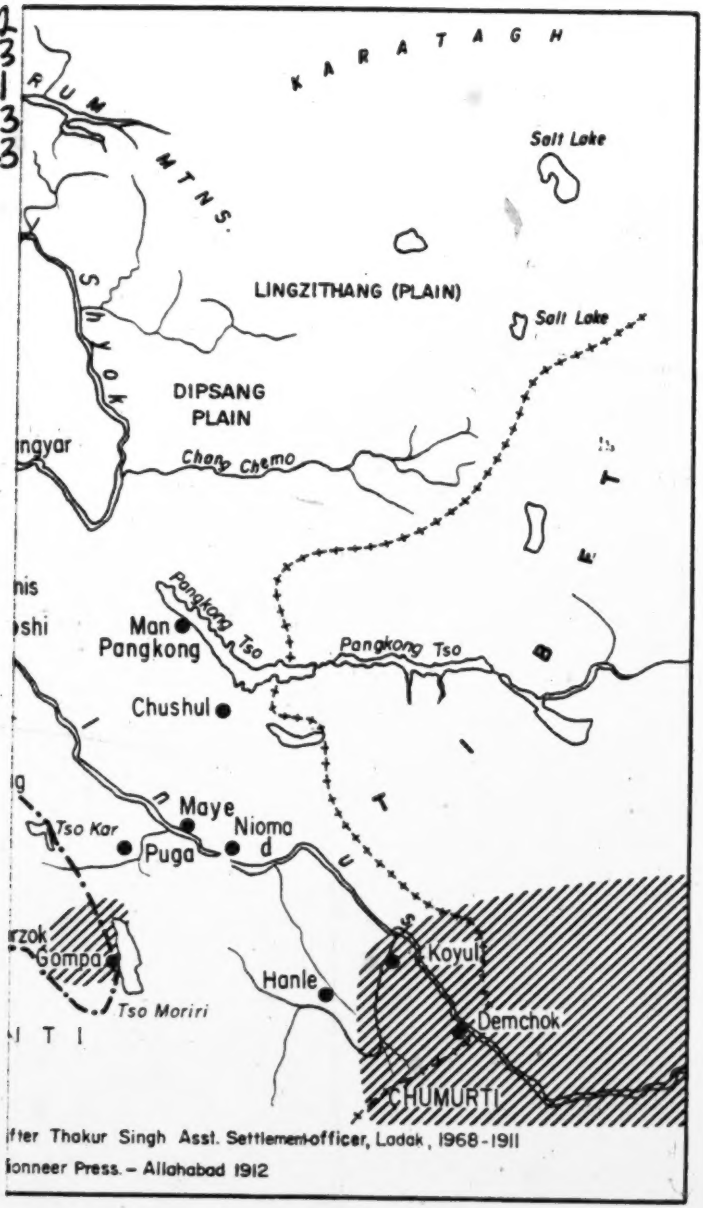
24:Peter E-5 (1938)1963 AJ4 West Tibetans AJ4



Map V. Sketch map of Ladak.

[facing p 335-A]

102
103
131
133
563



[facing P. 335-B]